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09/889,410	07/17/2001	J Kitahara	H-996	2813

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EXAMINER

SCHUBERT, KEVIN R

ART UNIT PAPER NUMBER

2137

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/889,410

Applicant(s)

KITAHARA, J

Examiner

Kevin Schubert

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 09142001; 07172001.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

Claims 1-12 have been examined.

***Claim Rejections - 35 USC § 102***

5        The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

10        (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15        Claims 1-2 and 4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis, U.S. Patent No. 5,805,712.

As per claim 1, the applicant describes an information processing apparatus with the following limitations which are anticipated by Davis:

- 20        a) a control device for performing predetermined processing of information (Col 8, lines 2-4);
- b) a bus for interconnecting said control device and other component devices of said information processing apparatus (Col 8, lines 5-6);
- c) characterized in that said control device is integrated on a single semiconductor chip in which key information is generated and in which sensitive information is encrypted (Col 8, lines 7-10).

25        As per claim 2, the applicant describes the information processing apparatus of claim 1, which is anticipated by Davis (see above), with the following additional limitation which is also anticipated by Davis:

Wherein said control device comprises an external bus controller for preventing non-encrypted sensitive information from being output onto said bus (Col 5, lines 54-67; Col 6, lines 1-7);

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The applicant should note the lengthy process which the system goes through in order to ensure that the public/private key pair is unique. Since all the information is sensitive in Davis' system, data is only output to the bus when it is protected. In a similar fashion, data is only output to the bus in the applicant's system when it is protected.

5

As per claim 4, the applicant describes the information processing apparatus of claim 1, which is anticipated by Davis (see above), with the following additional limitation which is also anticipated by Davis:

Wherein a memory device is provided for storing information encrypted by said control device  
10 (Col 8, lines 13-17).

As per claim 5, the applicant describes the information processing apparatus of claim 1, which is anticipated by Davis (see above), with the following additional limitation which is also anticipated by Davis:

15       Wherein said control device comprises means for decrypting encrypted information at an information write operation (Col 8, lines 13-17);

The applicant should note that the digital certificate at the write operation (storage) comprises means for decrypting encrypted input information.

20       As per claim 6, the applicant describes the information processing apparatus of claim 5, which is anticipated by Davis (see above), with the following additional limitation which is also anticipated by Davis:

a) wherein said information processing apparatus is connected to a different information processing apparatus through a network (Col 10, 11-15);

25       b) wherein said information processing apparatus decrypts encrypted information which is received from said different information processing apparatus (Col 3, lines 27-30).

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The applicant should note that the hardware device can transmit information to another device through a network using a transceiver.

As per claim 7, the applicant describes the information processing apparatus of claim 1, which is anticipated by Davis (see above), with the following additional limitation which is also anticipated by Davis:

Wherein a plurality of said processing devices are provided, and cryptographic processing is carried out in each of said processing devices (Col 6, lines 9-32).

As per claim 8, the applicant describes the information processing apparatus of claim 1, which is anticipated by Davis (see above), with the following additional limitation which is also anticipated by Davis:

Wherein said processing device comprises means for receiving an encrypted program and for carrying out decryption thereof (Col 6, lines 9-32).

As per claim 9, the applicant describes the information processing apparatus of claim 1, which is anticipated by Davis (see above), with the following additional limitations which are also anticipated by Davis:

- a) a microprocessor for carrying out said predetermined processing (Col 8, lines 3-4);
- b) a cryptographic algorithm memory device for storing an algorithm for information cryptographic processing (Col 8, lines 32-35);
- c) a cryptographic processing device for carrying out cryptographic processing according to said algorithm (Col 8, lines 40-52);
- d) a microprocessor bus for interconnecting said microprocessor, said cryptographic processing algorithm memory device, and said cryptographic processing device (Col 8, lines 5-6).

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Claims 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagel, U.S. Patent No. 5,592,549.

As per claim 10, the applicant describes the following which is anticipated by Nagel:

5 a) a disk system controller, including a processing device for carrying out information processing to control a magnetic disk for storing encrypted information (Col 3, lines 33-36)

b) characterized in that, upon receipt of a request for reading out said encrypted information, key information is generated, encrypted file location information indicating a location of information stored on said magnetic disk is read out of said magnetic disk, said encrypted file location information thus read out  
10 is decrypted in a semiconductor chip on which said processing device is integrated, and according to the decrypted file location information, said encrypted information is read out of said magnetic disk (Col 3, lines 37-40);

The applicant should note that the "information retrieval device" (Col 3, line 33) is the disk system controller which retrieves the information. The "control device" (Col 3, line 30) is the information  
15 processing apparatus which requests that the information retrieval device take action to retrieve information.

As per claim 11, the applicant describes the disk system controller of claim 10, which is anticipated by Nagel (see above), with the following limitation which is also anticipated by Nagel:

20 Wherein said disk controller is connected to a plurality of magnetic disks (Col 3, lines 33-36; Col 3, lines 41-44);

The applicant should note that the information retrieval device, or disk system controller, is connected to a secure information source which is in memory and a data logging device which is also in memory. Furthermore, the secure information source could comprise a plurality of magnetic disks,  
25 depending on the size of the source.

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As per claim 12, the applicant describes the disk system controller of claim 10, which is anticipated by Nagel (see above), with the following limitations which are also anticipated by Nagel:

a) wherein said disk system controller is connected to an information processing apparatus (Col 3, lines 30-32);

5        b) wherein said disk system controller reads out said encrypted information from said magnetic disk upon receipt of a request therefrom (Col 3, lines 33-36);

The applicant should note that the "information retrieval device" (Col 3, line 33) is the disk system controller which retrieves the information. The "control device" (Col 3, line 30) is the information processing apparatus which requests that the information retrieval device take action to retrieve  
10       information.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

15        (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.  
20

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Davis in further view of Hartman, U.S. Patent No. 5,224,166.

25        As per claim 3, the applicant describes the information processing apparatus of claim 2, which is met by Davis (see above), with the following additional limitation which is met by Hartman:

Wherein information not requiring encryption is output onto said bus through said external bus controller (Col 3, lines 50-57; Col 6, lines 1-5);

Davis discloses all the limitations of claim 2. However, Davis' controller method only serves to  
30       prevent non-encrypted information from being output onto said bus. Thus, Davis' method fails to disclose

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a way to allow non-encrypted information to be output to the bus. Hartman describes a method which regulates whether information is encrypted or non-encrypted and outputs the data accordingly to the bus to be stored in the internal cache. Because it is sometimes allowable for non-encrypted data to be output to the bus (for example if the data is not sensitive), it would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the teachings of Hartman with those of Davis.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the International Preliminary Examination Report (IPER).

Claim 1 is rejected under JP 05-053921 in accordance with the examiner's remarks in the IPER. Moreover, claim 1 is also rejected under JP 64-041947 in accordance with the examiner's remarks in the IPER. Lastly, claim 1 is rejected under JP 10-275115 in accordance with the examiner's remarks in the IPER.

Claim 2 is rejected on the same grounds as claim 1, on which it depends, with an additional limitation which is met by obviousness in accordance with the examiner's remarks in the IPER.

Claim 3 is rejected on the same grounds as claim 2, on which it depends, with an additional limitation which is met by obviousness in accordance with the examiner's remarks in the IPER.

Claim 4 is rejected on the same grounds as claim 1, on which it depends, with an additional limitation which is rejected under JP 05-053921 and JP 64-041947 in accordance with the examiner's remarks in the IPER.

Claim 5 is rejected on the same grounds as claim 1, on which it depends, with an additional limitation which is met by obviousness in accordance with the examiner's remarks in the IPER.



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Claim 6 is rejected on the same grounds as claim 5, on which it depends, with an additional limitation which is met by obviousness in accordance with the examiner's remarks in the IPER.

5 Claim 7 is rejected on the same grounds as claim 1, on which it depends, with an additional limitation which is met by obviousness in accordance with the examiner's remarks in the IPER.

Claim 8 is rejected on the same grounds as claim 1, on which it depends, with an additional limitation which is met by obviousness in accordance with the examiner's remarks in the IPER.

10 Claim 9 is rejected under JP 05-053921 and JP 64-041947 in accordance with the examiner's remarks in the IPER.

Claim 10 is rejected under JP 04-163768 in further view of JP 05-053921 and JP 64-041947 and in accordance with the examiner's remarks in the IPER. Claim 10 is also rejected under JP 09-044407 in  
15 further view of JP 05-053921, JP 64-041947, and JP 10-275115 in accordance with the examiner's remarks in the IPER.

Claims 11 and 12 are rejected in further view of obviousness in accordance with the examiner's remarks in the IPER.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 8:00-5:00.

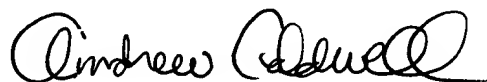
25 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should  
5 you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Andrew Caldwell